

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

New Well  Re-Entry  Workover

Oil  WSW  SWD

Gas  DH  EOR

OG  GSW

CM (Coal Bed Methane)

Cathodic  Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

Deepening  Re-perf.  Conv. to EOR  Conv. to SWD  
 Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or  
Recompletion Date Recompletion Date

API No.: \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: \_\_\_\_\_

Confidential Release Date: \_\_\_\_\_

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Bowman, William F. dba The Bill Bowman Oil Company
Well Name	CLARK B 1
Doc ID	1530209

All Electric Logs Run

Dual Induction Log
Dual Comp Porosity Log
Microresistivity Log
Computer Processed Interpretation

Form	ACO1 - Well Completion
Operator	Bowman, William F. dba The Bill Bowman Oil Company
Well Name	CLARK B 1
Doc ID	1530209

Tops

Name	Top	Datum
Anhydrite Top	2376	+392
Anhydrite Base	2410	+358
Howard	3537	-769
Topeka	3622	-853
Heebner	3830	-1062
Toronto	3854	-1086
Lansing -Kansas City	3867	-1099
Base Kansas City	4098	-1330
Ft. Scott	4300	-1532
RTD	4332	-1568



# FRANKS Oilfield Service

◆ 815 Main Street Victoria, KS 67671 ◆ 24 Hour Phone (785) 639-7269  
 ◆ Office Phone (785) 639-3949 ◆ Email: franksoilfield@yahoo.com

TICKET NUMBER 0194  
 LOCATION Horize US  
 FOREMAN Miles Shaw

## FIELD TICKET & TREATMENT REPORT CEMENT

US

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
8/10/20		Clark B #1	31	8 S	28W	Sheridan

CUSTOMER The Bill Bowman Oil Company		
MAILING ADDRESS 2640 W Rd (Bill Home)		
CITY Natoma	STATE US	ZIP CODE 67651

TRUCK #	DRIVER	TRUCK #	DRIVER
102	Miles S		
101	Sack T		

JOB TYPE <u>Surface</u>	HOLE SIZE <u>12 1/4"</u>	HOLE DEPTH <u>263.5</u>	CASING SIZE & WEIGHT <u>8 3/4"</u>
CASING DEPTH <u>261.5</u>	DRILL PIPE _____	TUBING _____	OTHER _____
SLURRY WEIGHT <u>14.7</u>	SLURRY VOL _____	WATER gal/sk _____	CEMENT LEFT in CASING _____
DISPLACEMENT _____	DISPLACEMENT PSI _____	MIX PSI _____	RATE _____

REMARKS: Safety meetings & log up on White Knight drilling circulate casing  
M.x 1753 Class A 322 Cement did circulate to collar

Thanks Miles & Co

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
PC002	1	PUMP CHARGE	1150.00	1150.00
MO01	5	MILEAGE	6.50	32.50
MO03	Tons	Ten Mileage delivery	600.00	6000.00
CP004	175 Sx	Surface bond Class A 38cc 28gal	24.50	4287.50
			Subtotal	6070.00
		Loss 358 disc		2124.50
		Subtotal		3945.50
			SALES TAX	236.88
			ESTIMATED TOTAL	4182.38

AUTHORIZATION Terry Austin TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

# FRANKS Oilfield Service

◆ 815 Main Street Victoria, KS 67671 ◆ 24 Hour Phone (785) 639-7269  
 ◆ Office Phone (785) 639-3949 ◆ Email: franksoilfield@yahoo.com

TICKET NUMBER 0195  
 LOCATION Hexico KS  
 FOREMAN M. S. Shaw

## FIELD TICKET & TREATMENT REPORT CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
8/18/20		Clark B #1	31	8 S	28 W	Shedden

CUSTOMER  
B.H. Bowman Oil Company  
 MAILING ADDRESS  
 CITY STATE ZIP CODE

TRUCK #	DRIVER	TRUCK #	DRIVER
101	Scott Hall		
	Miles S		

JOB TYPE PTA HOLE SIZE 7 7/8" HOLE DEPTH 4332 CASING SIZE & WEIGHT \_\_\_\_\_  
 CASING DEPTH \_\_\_\_\_ DRILL PIPE 4 1/2" TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 13.8 SLURRY VOL 1.4 WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING \_\_\_\_\_  
 DISPLACEMENT \_\_\_\_\_ DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meetings + Review on White Knight drilling Plus as ordered  
1<sup>st</sup> plus 50 sk @ 2395'  
2<sup>nd</sup> plus 100 sk @ 1565'  
3<sup>rd</sup> plus 50 sk @ 310'  
4<sup>th</sup> plus 10 sk @ 40 6 plug 240 sk (work 48 sk) 1/4 # 16  
RH 30 sk

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
PL002	1	PUMP CHARGE	1150. <sup>00</sup>	1150. <sup>00</sup>
M201	5	MILEAGE	6.50	32.50
M203	10.68 tons	Ton Mitrease delivery	600. <sup>00</sup>	600. <sup>00</sup>
CB000	240 sk	60/40 48 sk 1/4 # 16	16.25	3900. <sup>00</sup>
FE054	1	8 5/8 wooden Plug	165. <sup>00</sup>	165. <sup>00</sup>
			Subtotal	5847.50
			less 358.82	2046.62
			Subtotal	3900.98
			SALES TAX	224.59
			ESTIMATED TOTAL	4025.47

AUTHORIZATION [Signature] TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

# JERRY GREEN

CONSULTING GEOLOGIST

P.O. BOX 87

SCHOENCHEN, KS 67667

PHONE: 785-625-5155

## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY <u>BILL BOWMAN OIL CO</u>	ELEVATIONS
LEASE <u>CLARK B #1</u>	KB <u>2768'</u>
FIELD <u>WILDCAT</u>	DF _____
LOCATION <u>NE-NW-SE-NE</u>	GL <u>2763'</u>
SEC <u>31</u> TWSP <u>8S</u> RGE <u>28W</u>	Measurements Are All
COUNTY <u>SHER.</u> STATE <u>KS</u>	From <u>KB</u>
CONTRACTOR <u>WHITE KNIGHT</u>	CASING
SPUD <u>8-10-20</u> COMP <u>8-18-20</u>	SURFACE <u>261</u>
RTD <u>4332</u> LTD <u>4125' 4126'</u>	PRODUCTION _____
MUD UP <u>3300'</u> TYPE MUD <u>CHEM</u>	ELECTRICAL SURVEYS
	<u>STACK</u>
	<u>MICRO</u>
SAMPLES SAVED FROM <u>3300'</u>	TO <u>TD</u>
DRILLING TIME KEPT FROM <u>3300'</u>	TO <u>TD</u>
SAMPLES EXAMINED FROM <u>3300'</u>	TO <u>TD</u>
GEOLOGICAL SUPERVISION FROM <u>3300'</u>	TO <u>TD</u>
GEOLOGIST ON WELL <u>13TH-17TH</u>	

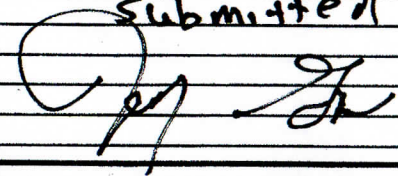
FORMATION TOPS	LOG	SAMPLES	
HOWARD	3535-771	3537-769	
TOPEKA	3620-852	3622-853	
HEEBNER	3830-1062	3830-1062	
TORONTO	3854-1086	3854-1086	
LKC.	3868-1100	3867-1099	
BKC	4098-1330	4098-1330	
FT. SCOTT		4300-1532	
RTD		4332-1568	



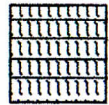
REMARKS

All Parties involved recommended  
that this well be plugged.

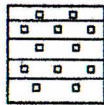
Respectfully  
Submitted



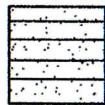
### LEGEND



Anhydrite



Salt



Sandstone



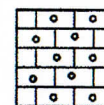
Shale



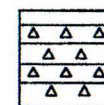
Carb sh



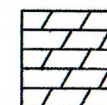
Limestone



Ool. Lime



Chert



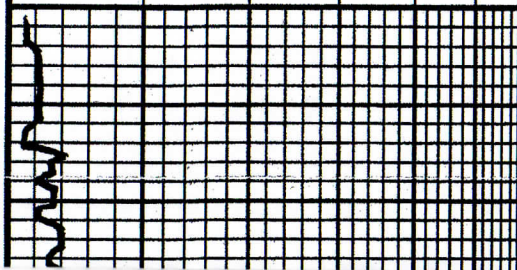
Dolomite

DRILLING TIME IN MINUTES  
PER FOOT  
Rate of Penetration Decreases



5" 10" 15" 20" 25"

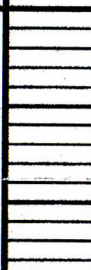
GREEN-7



DEPTH

3300'

LITHOLOGY



SAMPLE DESCRIPTIONS

various shale  
+

OIL SHOWS

REMARKS

Cut 111

Barren zone

Dolomite

Lms of Full FA  
barren interval  
Por

//

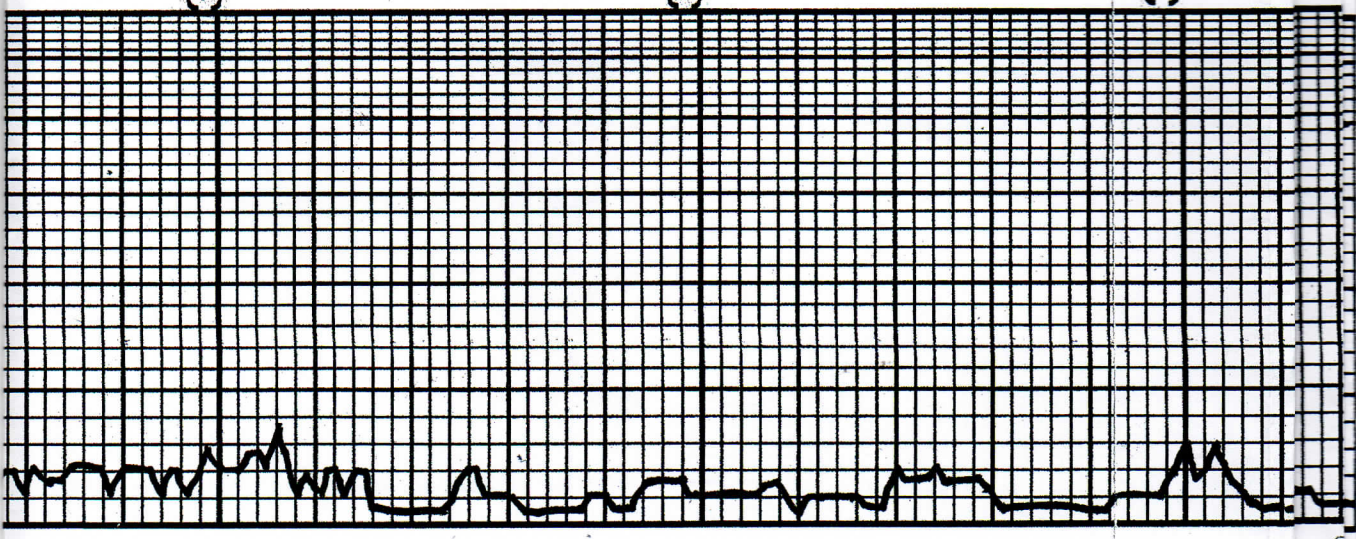
//

SS Red Fgr w

3350'

3400'

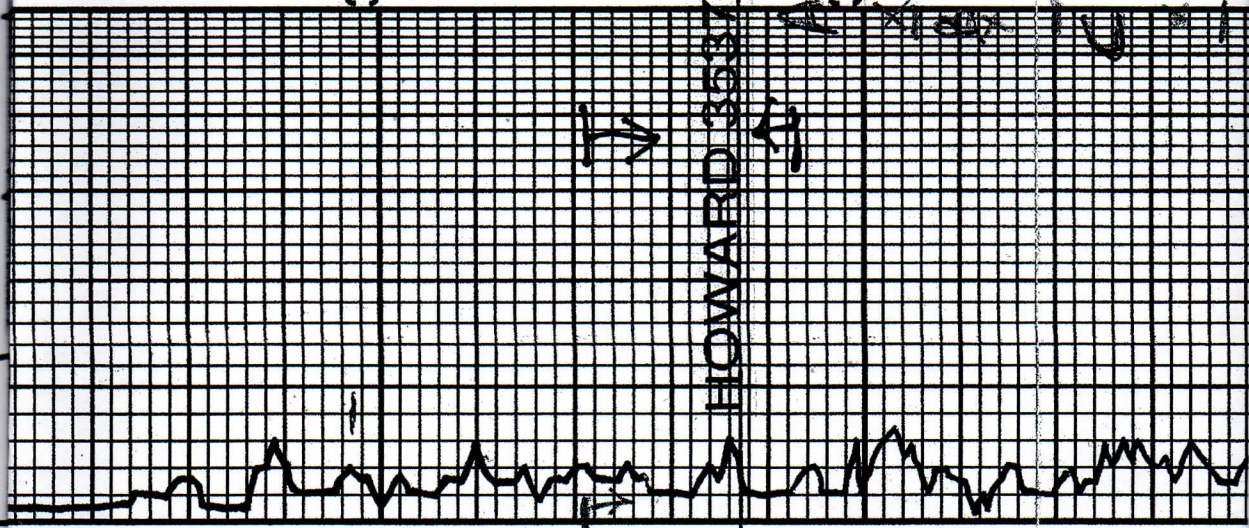
3450'



2  
6

REMARKS

All parties involved recommended



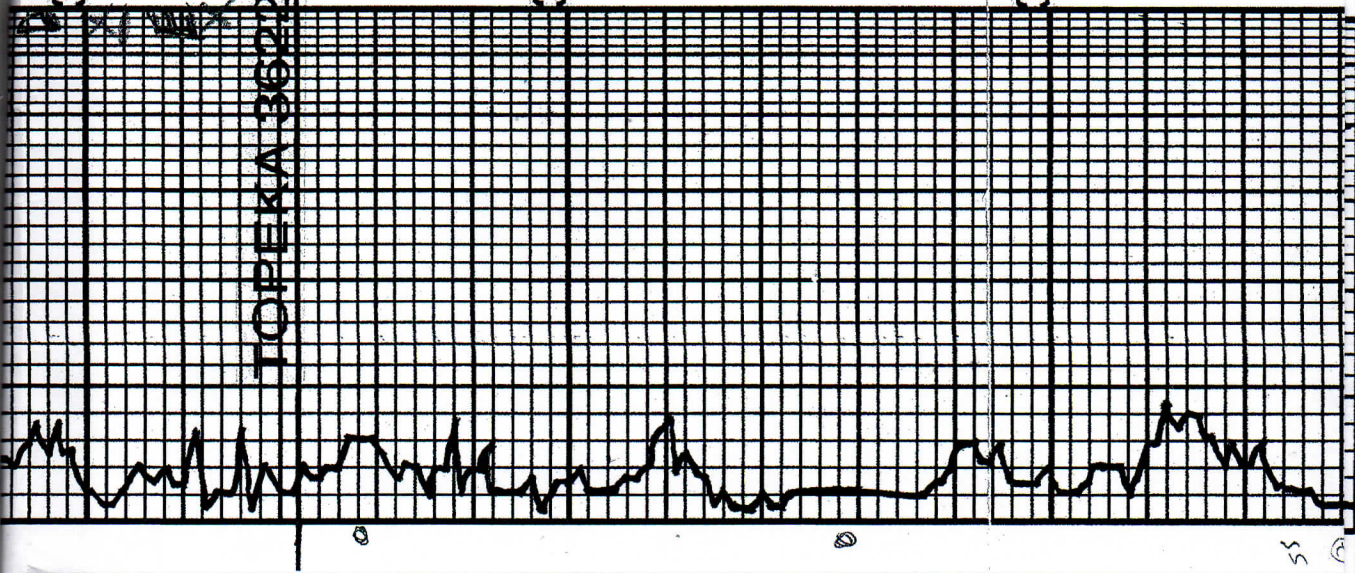
3500'

HOWARD 3537-769

3550'

''
''
Black sh INC 3520
Lms, dolomitic F-CK M heavy fo 1st inert + ung for
Lms wh of F-CK chalky - fm F-CK barren
''

DST #1  
 3521-413  
 Zone: Howard  
 Blow: Weak  
 Times: 45-45-45.45  
 Rec: 73' WM  
 SIP: 768-749  
 FP: 17-33 33-48



3600'

TOPEKA 3622-853

3650'

3700'

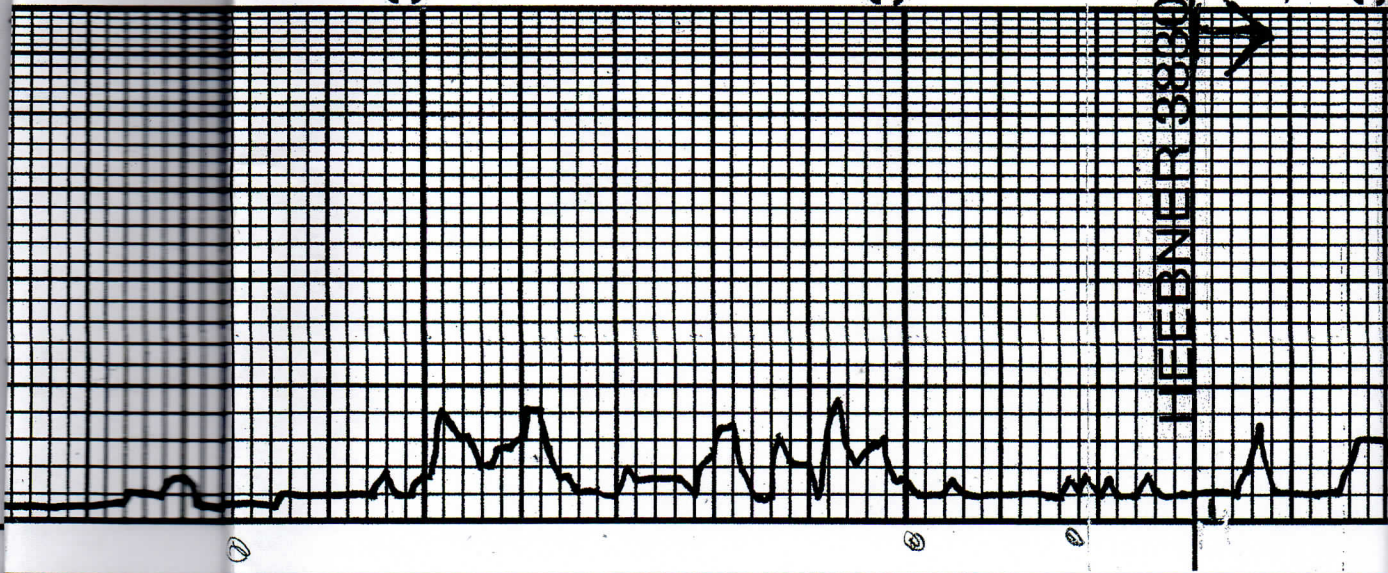
LMS wh - st	
Fm intert for barren	
LMS offsh Fm	
Fx Tr deadst intert for	
LMS wh chalky	
Fx 3670 Barren	
//	//
LMS offsh dol Fx barren	
SS Red Fgr w	

Net #11

55

REMARKS

All parties involved recommended



3750'

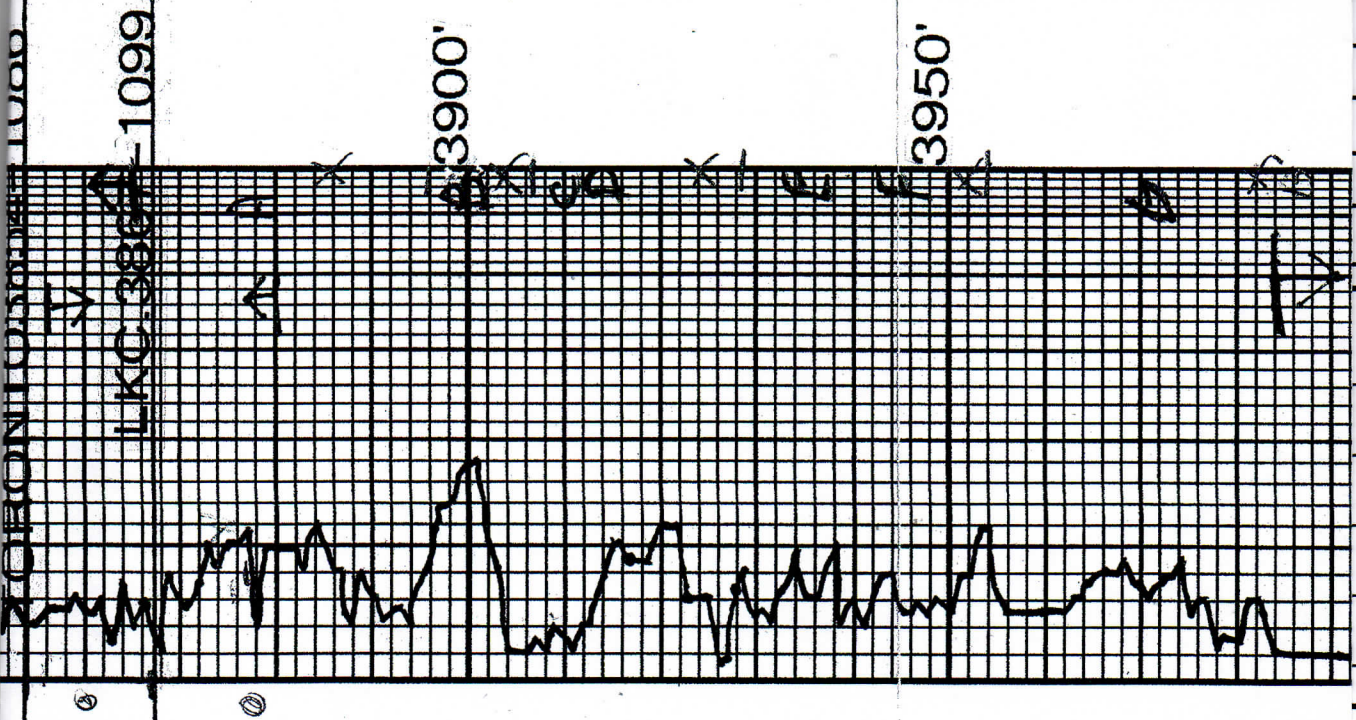
3800'

HEEBNER 3830-1062

3850'

11	11
glass Inc - 3% bayer interper	
Lms offh fx VM dead st interx 7 foss por	
Black shing 3810	
Lms offh fx VM heavy t dead FO t st interx + Vug por Black shale 3850	

DST #2  
3830 - 65  
Zone: Toronto  
Blow: Dica  
Times 30-30-15  
Rec 5' mud  
SIP 116  
FP 12-16



Lms offsh. Fm.  
 M-A deg. Fotst  
 interk + prng-par  
 Lms offsh oolitic +  
 foss vm - m Fot  
 St interool + Foss  
 + X Por  
 Lms offsh vm Fot  
 St inter par  
 Fm  
 Lms wh. offsh  
 chalky - Fm FX  
 barren  
 Trace Dead st  
 Lms wh chalky  
 Ft barren

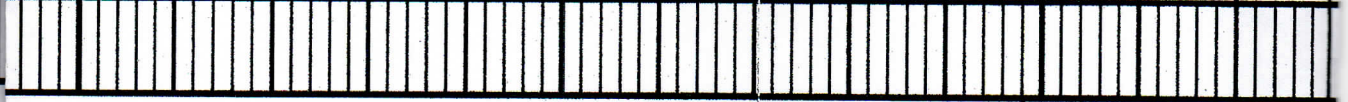
DST # 5  
 3856 - 80  
 Zone: LK A  
 Blow: weak -  
 Died  
 Times: 45-45-15  
 Rec: 31' 05m  
 Free oil on Top 3"  
 SIP 555#  
 FP 13 27#

1099  
 3900'  
 3950'

55  
 e All  
 VEYS  
 55

3984 - 4004  
 Zone: "H"  
 Blow: Medium-Strong  
 Times: 45-45-45-45  
 Rec: 220' 0cmw  
 15% oil  
 252' 0cmw  
 2 1/6 oil  
 252' 0cmw  
 1 1/6 oil  
 SIP: 1172-1147  
 FP: 26-205  
 207-344

Lms offsh FX M-  
 H deg Fo fst inter  
 + Foss Per  
 Lms offsh in FX  
 VM Fo fst inter X  
 + Foss Per Fm.  
 Lms + n FX argillaceous  
 VM Fo fst inter Foss  
 - M Fo - Per  
 Lms offsh FX  
 Tr fo fst chalky  
 Fm Mostly barren  
 Lms wh - offsh  
 chalky - Fm FX  
 barren  
 Varicol shale  
 Lms offsh FX

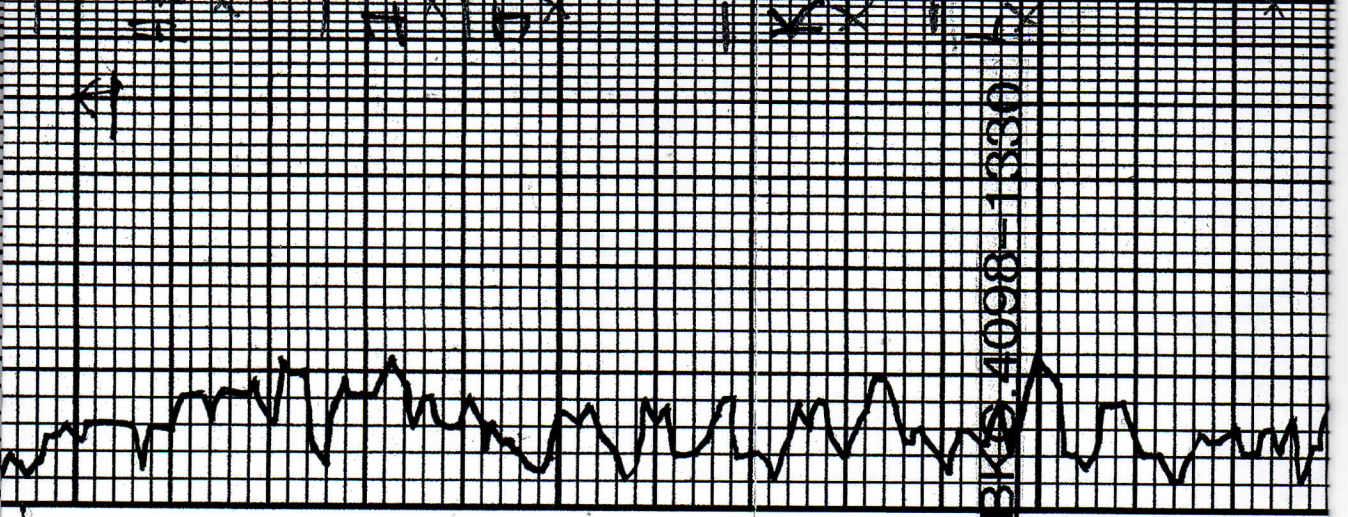


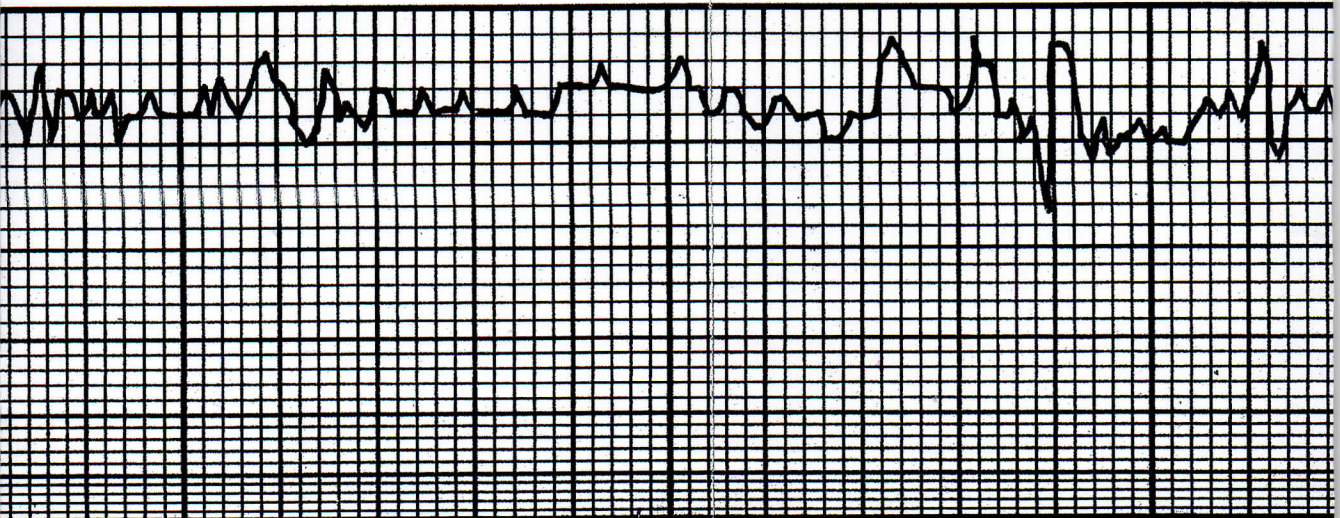
4000'

4050'

4100'

~~4098-1330~~





4150'

barren interx  
Por

lms of Fuh FM  
Chert Fx barren

''  
''

4200'

lms of Fuh to  
Chert barren

4250'

''  
''

BACK  
CAL S  
61  
ASING  
ents  
3  
8  
VATIO  
T  
-625-5



Black sh inc

lms of fuh cherty  
Fy Tr Fo 1st  
interd for

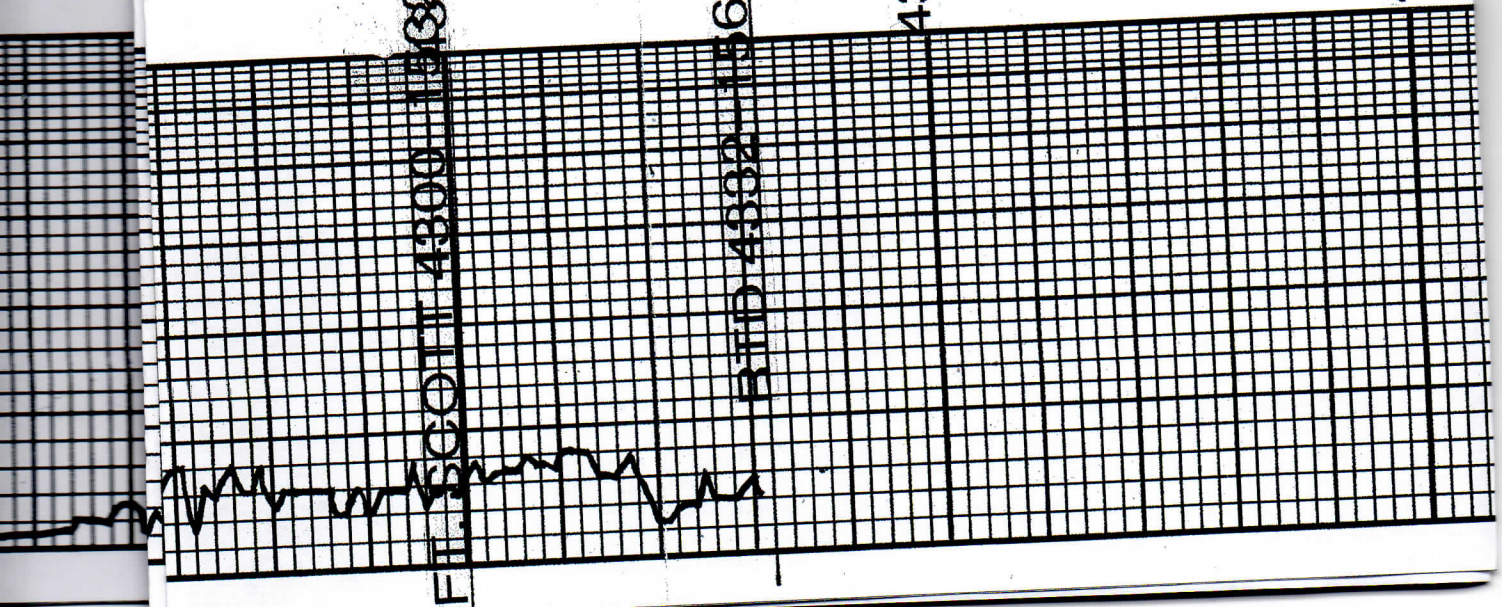
lms of fuh cherty  
Fy barren

4300'  
4300'  
4300'

4368  
4368  
4368

4350'

4400'





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Bow man Oil Company

**31-8S-28W Sheridan,KS**

2640 W Rd  
Natoma Ks, 67651

**Clark B #1**

Job Ticket: 67402

**DST#: 1**

ATTN: Jerry Green

Test Start: 2020.08.14 @ 01:05:00

## GENERAL INFORMATION:

Formation: **Howard**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:01:00

Time Test Ended: 07:55:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: #77

**Interval: 3521.00 ft (KB) To 3543.00 ft (KB) (TVD)**

Reference Elevations: 2768.00 ft (KB)

Total Depth: 3543.00 ft (KB) (TVD)

2763.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

**Serial #: 8671 Outside**

Press@RunDepth: 48.04 psig @ 3522.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.08.14

End Date: 2020.08.14

Last Calib.: 2020.08.14

Start Time: 01:05:05

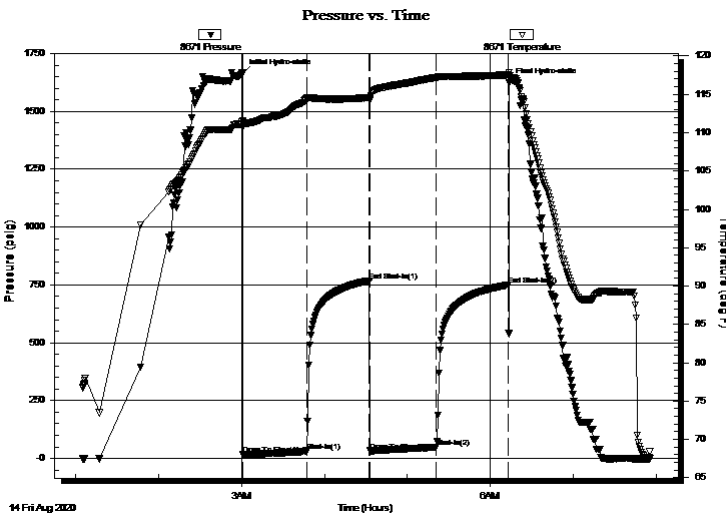
End Time: 07:55:14

Time On Btm: 2020.08.14 @ 03:00:45

Time Off Btm: 2020.08.14 @ 06:13:30

**TEST COMMENT:** 45 - IFP - Started out with a weak blow then built up to 1 1/4"  
45 - ISI - No Return  
45 - FFP - Started with a weak blow and slowly built up to 3/4"  
45 - FSI - No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1665.46	111.51	Initial Hydro-static
1	16.83	110.74	Open To Flow (1)
47	32.73	114.39	Shut-In(1)
92	768.42	114.56	End Shut-In(1)
92	32.53	114.23	Open To Flow (2)
141	48.04	117.19	Shut-In(2)
193	748.80	117.54	End Shut-In(2)
193	1623.01	117.86	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
73.00	WM - 75%w - 25%m	0.75

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Bow man Oil Company

**31-8S-28W Sheridan,KS**

2640 W Rd  
Natoma Ks, 67651

**Clark B #1**

Job Ticket: 67402

**DST#: 1**

ATTN: Jerry Green

Test Start: 2020.08.14 @ 01:05:00

## GENERAL INFORMATION:

Formation: **Howard**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:01:00

Time Test Ended: 07:55:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: #77

**Interval: 3521.00 ft (KB) To 3543.00 ft (KB) (TVD)**

Reference Elevations: 2768.00 ft (KB)

Total Depth: 3543.00 ft (KB) (TVD)

2763.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

**Serial #: 8354** Inside

Press@RunDepth: psig @ 3522.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.08.14 End Date: 2020.08.14

Last Calib.: 2020.08.14

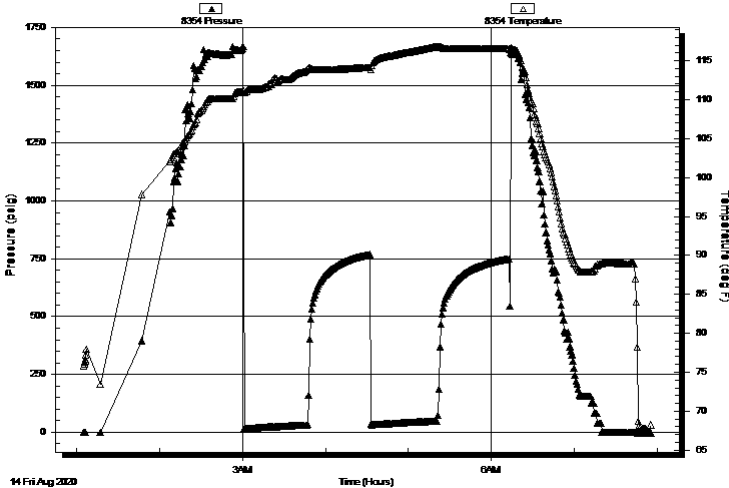
Start Time: 01:05:05 End Time: 07:55:14

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 45 - IFP - Started out with a weak blow then built up to 1 1/4"  
45 - ISI - No Return  
45 - FFP - Started with a weak blow and slowly built up to 3/4"  
45 - FSI - No Return

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

## Recovery

Length (ft)	Description	Volume (bbl)
73.00	WM - 75%w - 25%m	0.75

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Bow man Oil Company

**31-8S-28W Sheridan,KS**

2640 W Rd  
Natoma Ks, 67651

**Clark B #1**

Job Ticket: 67402

**DST#: 1**

ATTN: Jerry Green

Test Start: 2020.08.14 @ 01:05:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

42000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.40 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
73.00	WM - 75%w - 25%m	0.749

Total Length: 73.00 ft      Total Volume: 0.749 bbl

Num Fluid Samples: 0

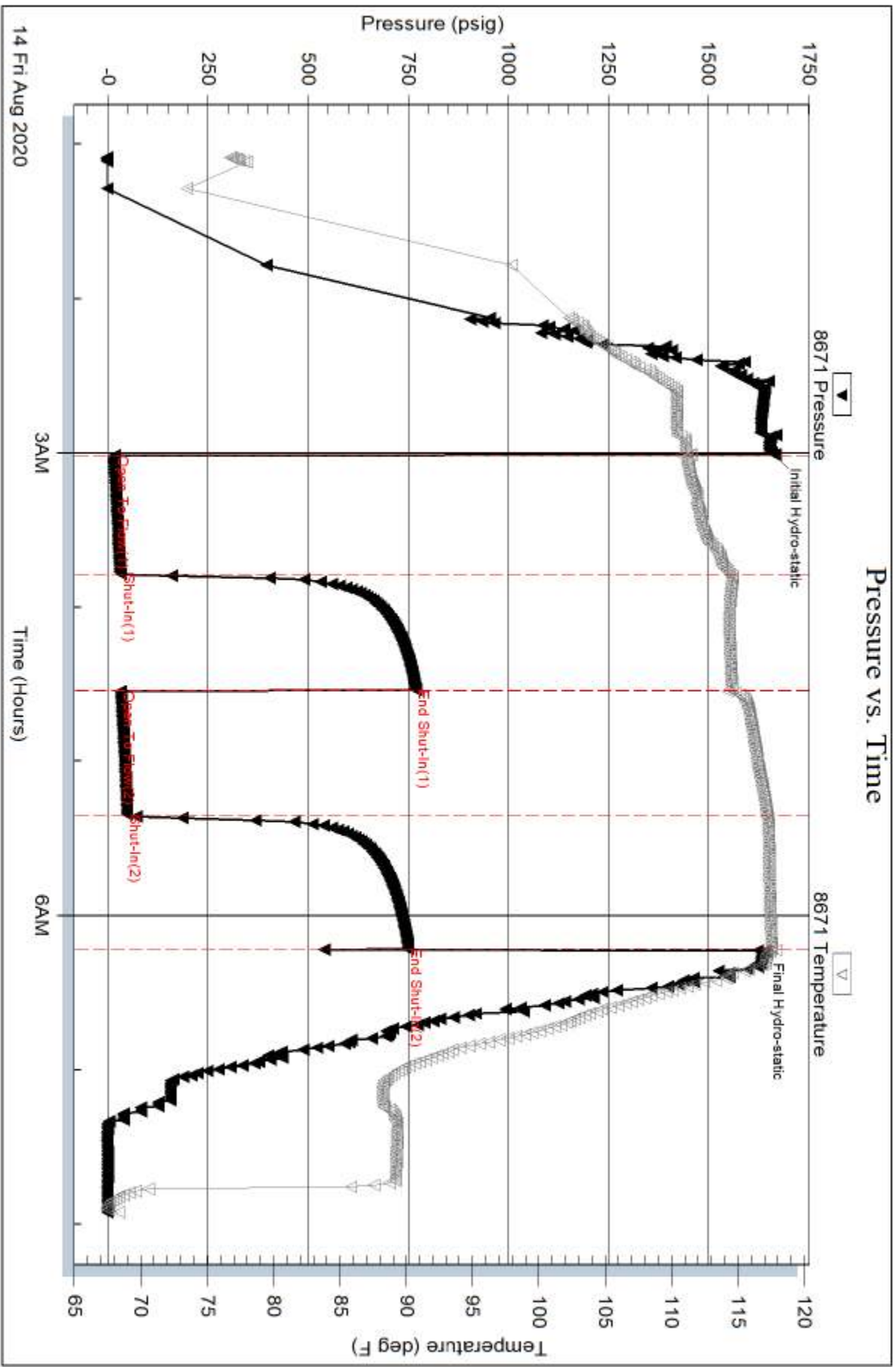
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



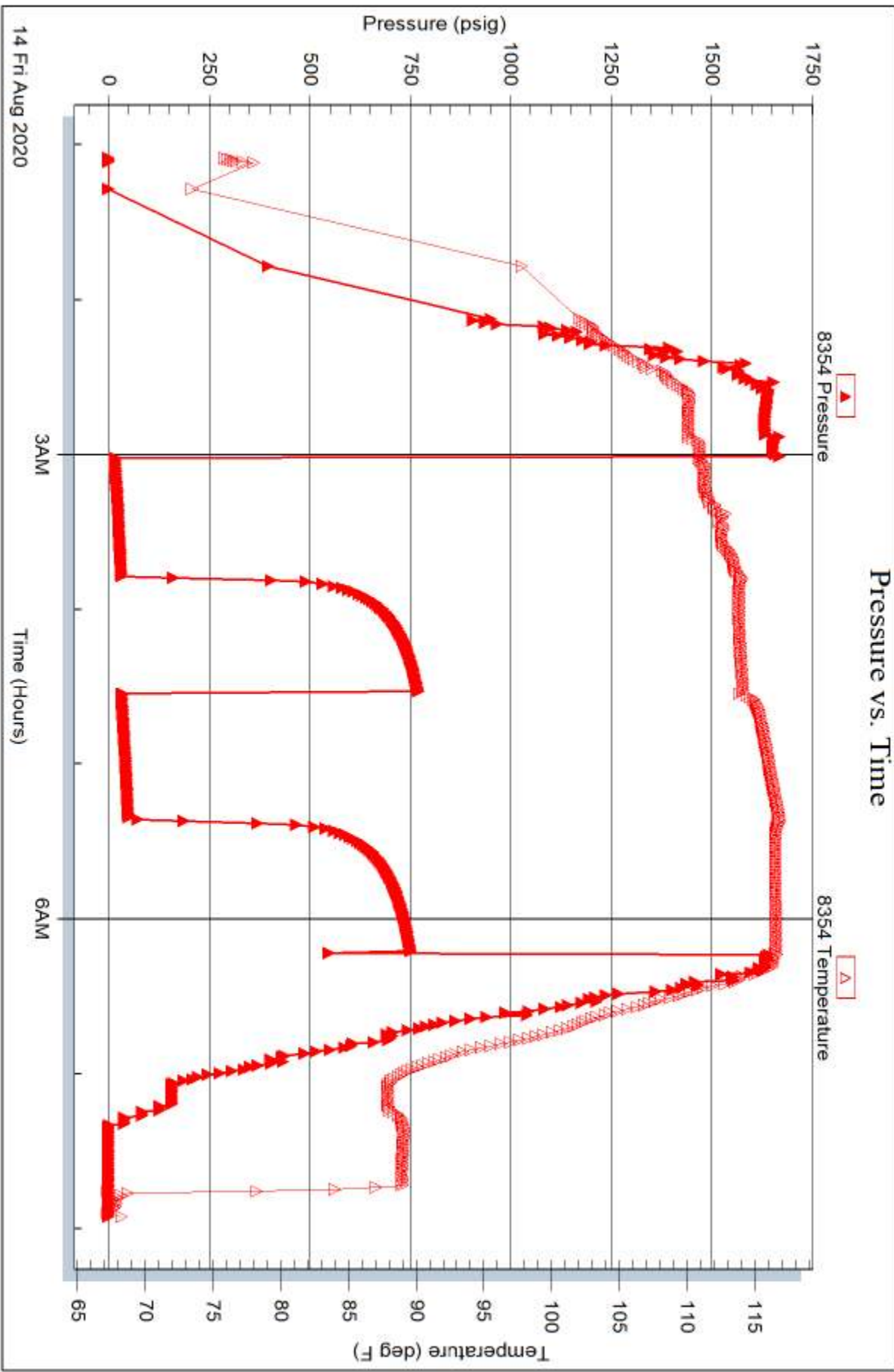
Serial #: 8354

Inside

Bow man Oil Company

Clark B#1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 67402

Printed: 2020.08.14 @ 10:14:35



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Bow man Oil Company  
2640 W Rd  
Natoma Ks, 67651  
ATTN: Jerry Green

**31 - 8S - 28W**

**Clark B #1**

Job Ticket: 67403

**DST#: 2**

Test Start: 2020.08.15 @ 02:02:00

## GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:47:15

Time Test Ended: 06:53:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: #77

**Interval: 3830.00 ft (KB) To 3865.00 ft (KB) (TVD)**

Reference Elevations: 2768.00 ft (KB)

Total Depth: 3865.00 ft (KB) (TVD)

2763.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

**Serial #: 8671 Outside**

Press@RunDepth: 13.94 psig @ 3831.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.08.15

End Date:

2020.08.15

Last Calib.:

2020.08.15

Start Time: 02:02:05

End Time:

06:53:29

Time On Btm:

2020.08.15 @ 03:47:00

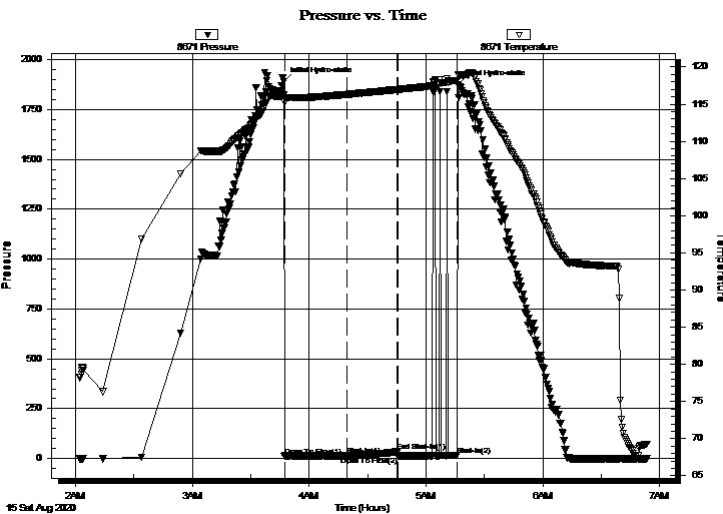
Time Off Btm:

2020.08.15 @ 05:16:30

**TEST COMMENT:** 30 - IFP - Blow started out as a weak blow and died off in 27 mins.

30 - ISI - No Return

15 - FFP - No surface blow for 15 mins. flushed tool and still didnt come back so pulled tool



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1890.85	116.26	Initial Hydro-static
1	12.50	115.28	Open To Flow (1)
33	13.94	116.31	Shut-In(1)
59	34.16	116.98	End Shut-In(1)
59	12.37	116.99	Open To Flow (2)
89	16.13	118.18	Shut-In(2)
90	1872.90	118.91	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud - 100% m	0.05

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Bow man Oil Company

**31 - 8S - 28W**

2640 W Rd  
Natoma Ks, 67651

**Clark B #1**

ATTN: Jerry Green

Job Ticket: 67403

**DST#: 2**

Test Start: 2020.08.15 @ 02:02:00

## GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:47:15

Time Test Ended: 06:53:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: #77

Interval: **3830.00 ft (KB) To 3865.00 ft (KB) (TVD)**

Reference Elevations: 2768.00 ft (KB)

Total Depth: 3865.00 ft (KB) (TVD)

2763.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

**Serial #: 8354** Inside

Press@RunDepth: psig @ 3831.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.08.15 End Date: 2020.08.15

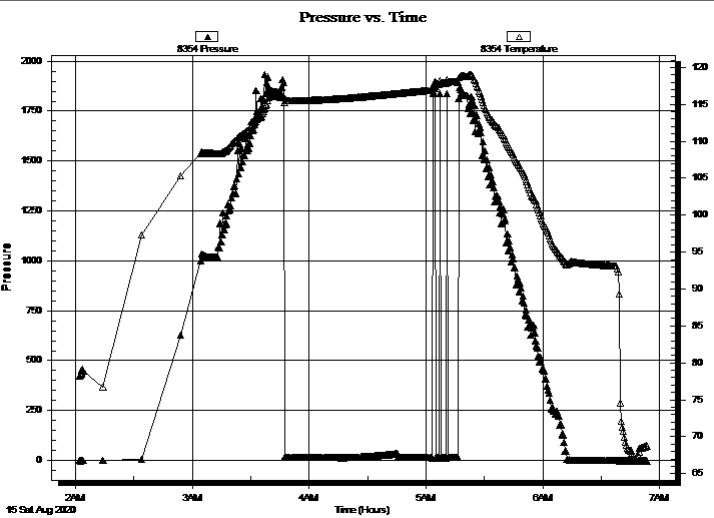
Last Calib.: 2020.08.15

Start Time: 02:02:05 End Time: 06:53:29

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30 - IFP - Blow started out as a weak blow and died off in 27 mins.  
 30 - ISI - No Return  
 15 - FFP - No surface blow for 15 mins. flushed tool and still didnt come back so pulled tool



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud - 100% <i>m</i>	0.05

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Bow man Oil Company

**31 - 8S - 28W**

2640 W Rd  
Natomä Ks, 67651

**Clark B #1**

Job Ticket: 67403

**DST#: 2**

ATTN: Jerry Green

Test Start: 2020.08.15 @ 02:02:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbf

Water Loss: 5.40 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	Mud - 100%m	0.051

Total Length: 5.00 ft      Total Volume: 0.051 bbf

Num Fluid Samples: 0

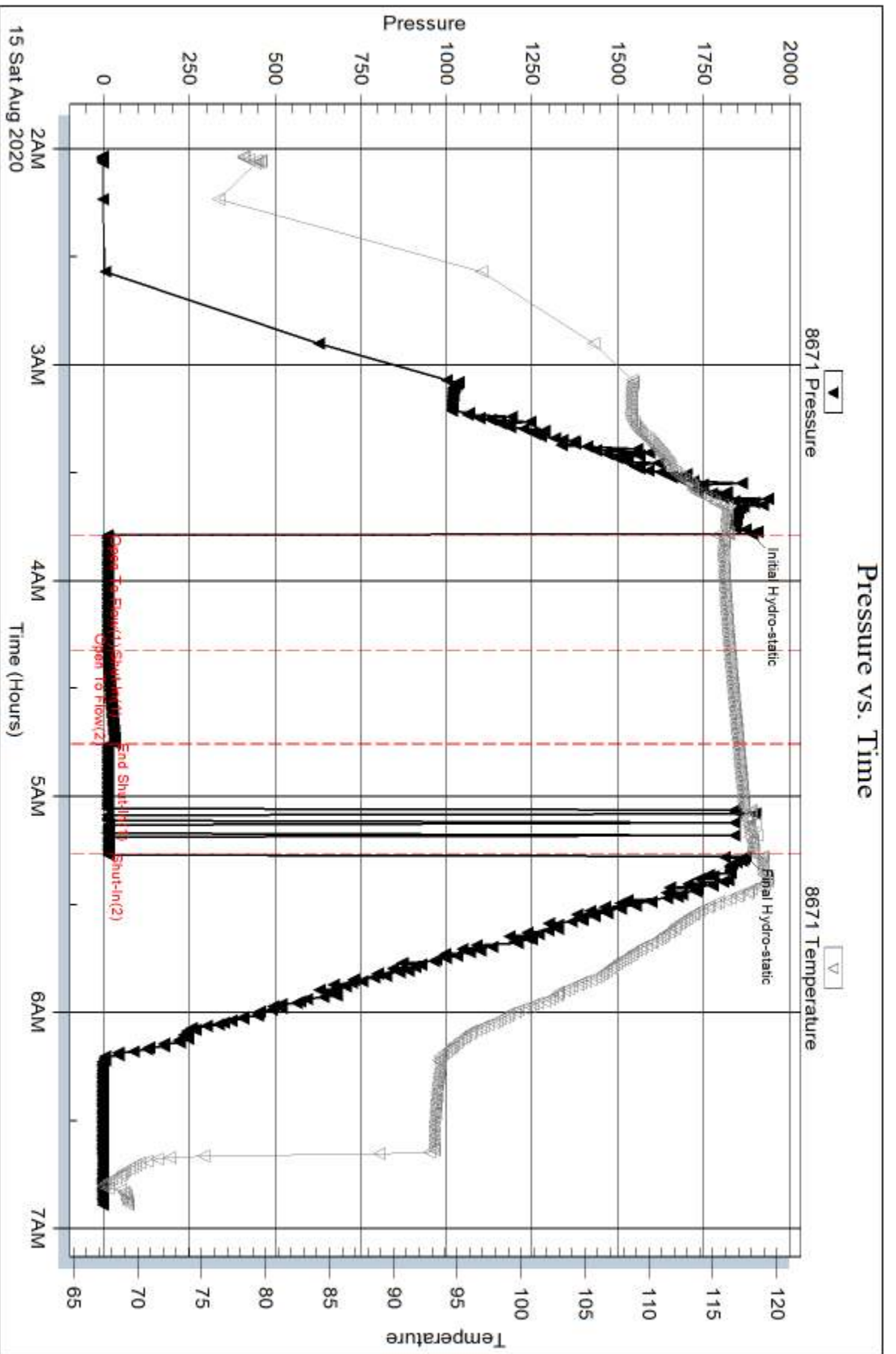
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



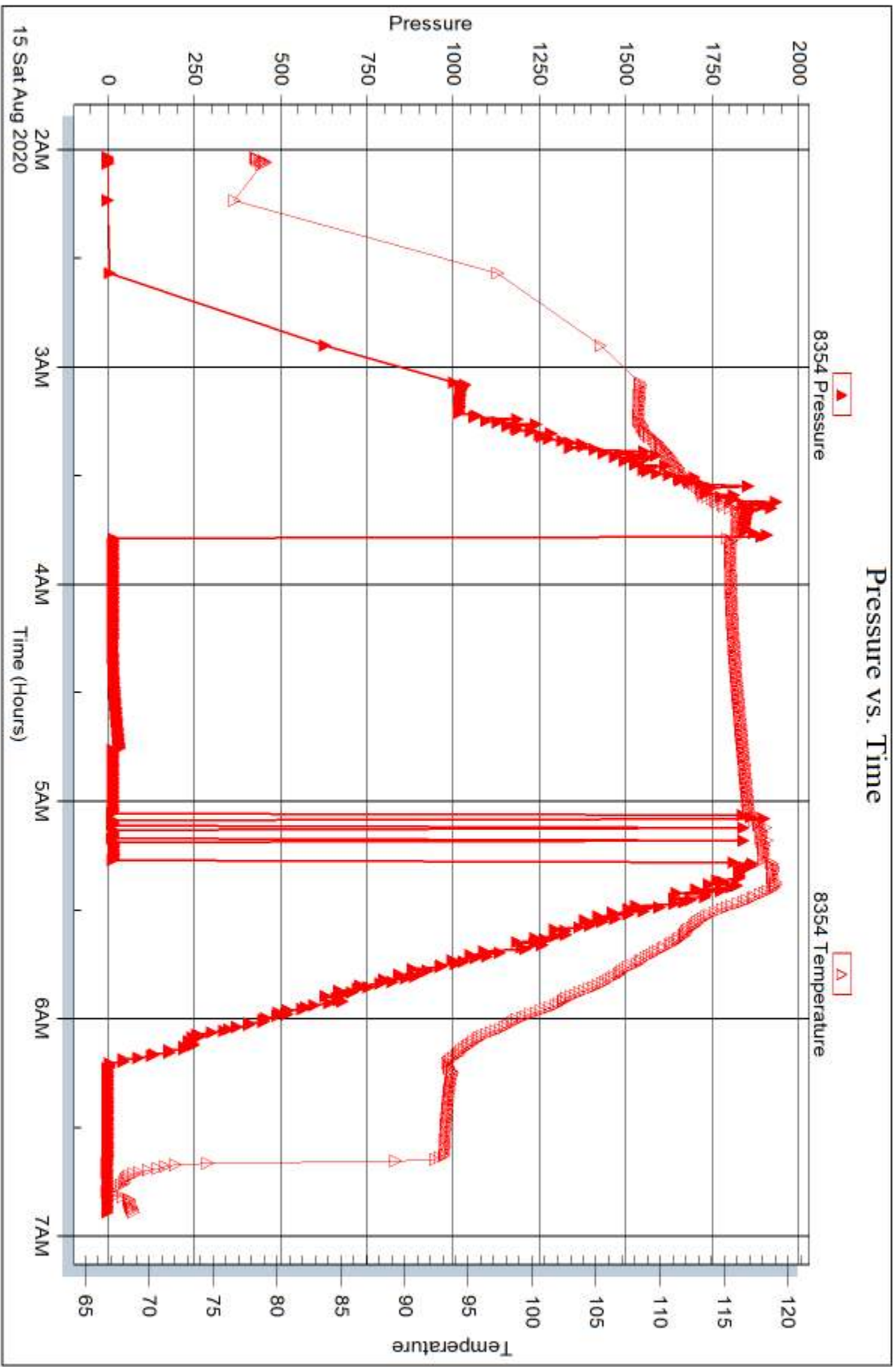
Serial #: 8354

Inside

Bow man Oil Company

Clark B#1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 67403

Printed: 2020.08.15 @ 09:29:06



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Bow man Oil Company  
2640 W Rd  
Natoma Ks, 67651  
ATTN: Jerry Green

**31 - 8S - 28W**

**Clark B #1**

Job Ticket: 67405

**DST#: 3**

Test Start: 2020.08.16 @ 10:20:00

## GENERAL INFORMATION:

Formation: **LKC - A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:30:15

Time Test Ended: 16:12:15

Test Type: Conventional Straddle (Initial)

Tester: Royal Fisher

Unit No: #77

**Interval: 3858.00 ft (KB) To 3880.00 ft (KB) (TVD)**

Total Depth: 4125.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 2768.00 ft (KB)

2763.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8671**

**Inside**

Press@RunDepth: 24.89 psig @ 3859.00 ft (KB)

Start Date: 2020.08.16

End Date: 2020.08.16

Start Time: 10:20:05

End Time: 16:12:14

Capacity: 8000.00 psig

Last Calib.: 2020.08.16

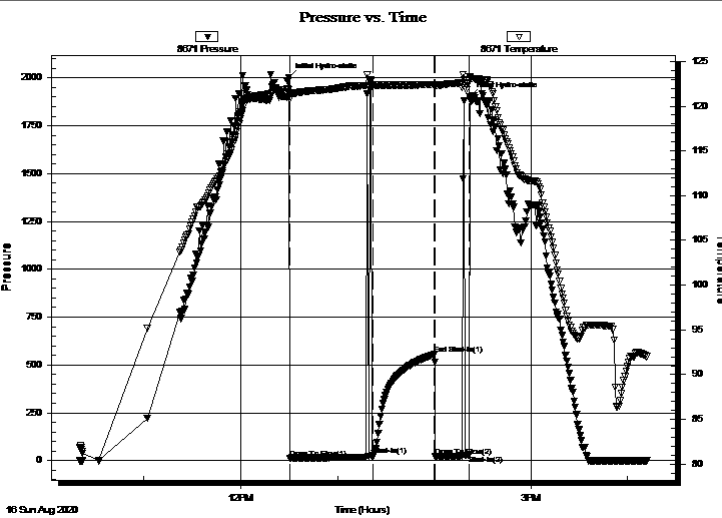
Time On Btm: 2020.08.16 @ 12:30:00

Time Off Btm: 2020.08.16 @ 14:22:00

**TEST COMMENT:** 45 - IFP - Weak blow started then died off a little then built to a weak blow and stayed

45 - ISI - No Return

15 - FFP - No blow for 15 mins. flushed tool then pulled tool



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1999.95	121.84	Initial Hydro-static
1	12.76	120.75	Open To Flow (1)
53	24.89	122.37	Shut-In(1)
90	554.48	122.38	End Shut-In(1)
91	23.63	122.22	Open To Flow (2)
112	27.23	122.61	Shut-In(2)
112	1901.60	123.29	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
31.00	OSM - Oil Spots - 100%m	0.32

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE**  
**TESTING, INC**

# DRILL STEM TEST REPORT

Bow man Oil Company

**31 - 8S - 28W**

2640 W Rd  
Natoma Ks, 67651

**Clark B #1**

ATTN: Jerry Green

Job Ticket: 67405

**DST#: 3**

Test Start: 2020.08.16 @ 10:20:00

## GENERAL INFORMATION:

Formation: **LKC - A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:30:15

Time Test Ended: 16:12:15

Test Type: Conventional Straddle (Initial)

Tester: Royal Fisher

Unit No: #77

**Interval: 3858.00 ft (KB) To 3880.00 ft (KB) (TVD)**

Reference Elevations: 2768.00 ft (KB)

Total Depth: 4125.00 ft (KB) (TVD)

2763.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

**Serial #: 8678 Outside**

Press@RunDepth: psig @ 3910.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.08.16

End Date: 2020.08.16

Last Calib.: 2020.08.16

Start Time: 10:20:05

End Time: 16:06:14

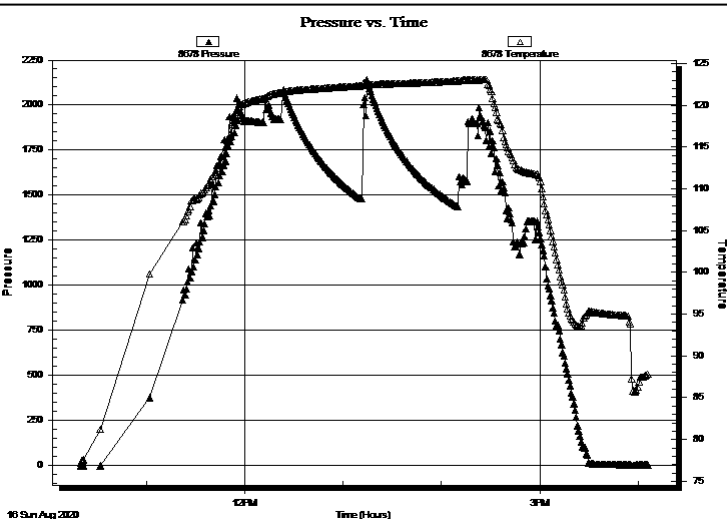
Time On Btm:

Time Off Btm:

**TEST COMMENT:** 45 - IFP - Weak blow started then died off a little then built to a weak blow and stayed

45 - ISI - No Return

15 - FFP - No blow for 15 mins. flushed tool then pulled tool



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

## Recovery

Length (ft)	Description	Volume (bbl)
31.00	OSM - Oil Spots - 100% m	0.32

## Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE TESTING, INC**

### DRILL STEM TEST REPORT

Bow man Oil Company

**31 - 8S - 28W**

2640 W Rd  
Natoma Ks, 67651

**Clark B #1**

Job Ticket: 67405

**DST#: 3**

ATTN: Jerry Green

Test Start: 2020.08.16 @ 10:20:00

#### GENERAL INFORMATION:

Formation: **LKC - A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:30:15

Time Test Ended: 16:12:15

Test Type: Conventional Straddle (Initial)

Tester: Royal Fisher

Unit No: #77

**Interval: 3858.00 ft (KB) To 3880.00 ft (KB) (TVD)**

Reference Elevations: 2768.00 ft (KB)

Total Depth: 4125.00 ft (KB) (TVD)

2763.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

**Serial #: 8354 Outside**

Press@RunDepth: psig @ 3859.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.08.16

End Date: 2020.08.16

Last Calib.: 2020.08.16

Start Time: 10:20:05

End Time: 16:12:14

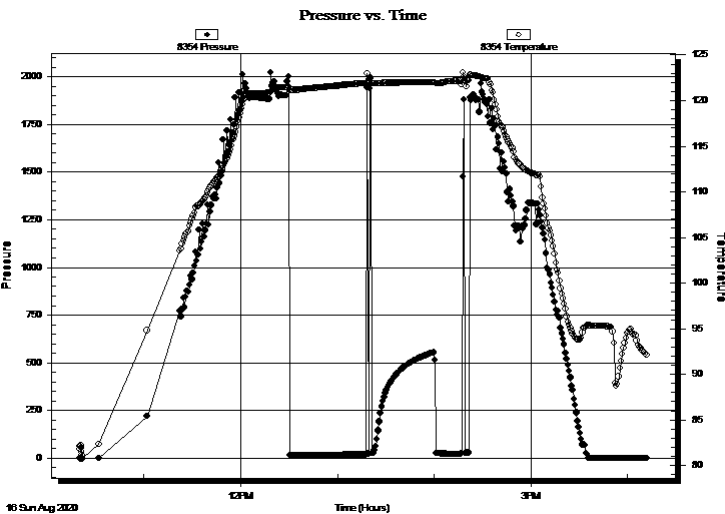
Time On Btm:

Time Off Btm:

TEST COMMENT: 45 - IFP - Weak blow started then died off a little then built to a weak blow and stayed

45 - ISI - No Return

15 - FFP - No blow for 15 mins. flushed tool then pulled tool



#### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

#### Recovery

Length (ft)	Description	Volume (bbl)
31.00	OSM - Oil Spots - 100%m	0.32

#### Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Bow man Oil Company

**31 - 8S - 28W**

2640 W Rd  
Natoma Ks, 67651

**Clark B #1**

Job Ticket: 67405

**DST#: 3**

ATTN: Jerry Green

Test Start: 2020.08.16 @ 10:20:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity: ppm

Viscosity: 50.00 sec/qt

Cushion Volume: bbl

Water Loss: 6.00 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 800.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
31.00	OSM - Oil Spots - 100%m	0.318

Total Length: 31.00 ft      Total Volume: 0.318 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

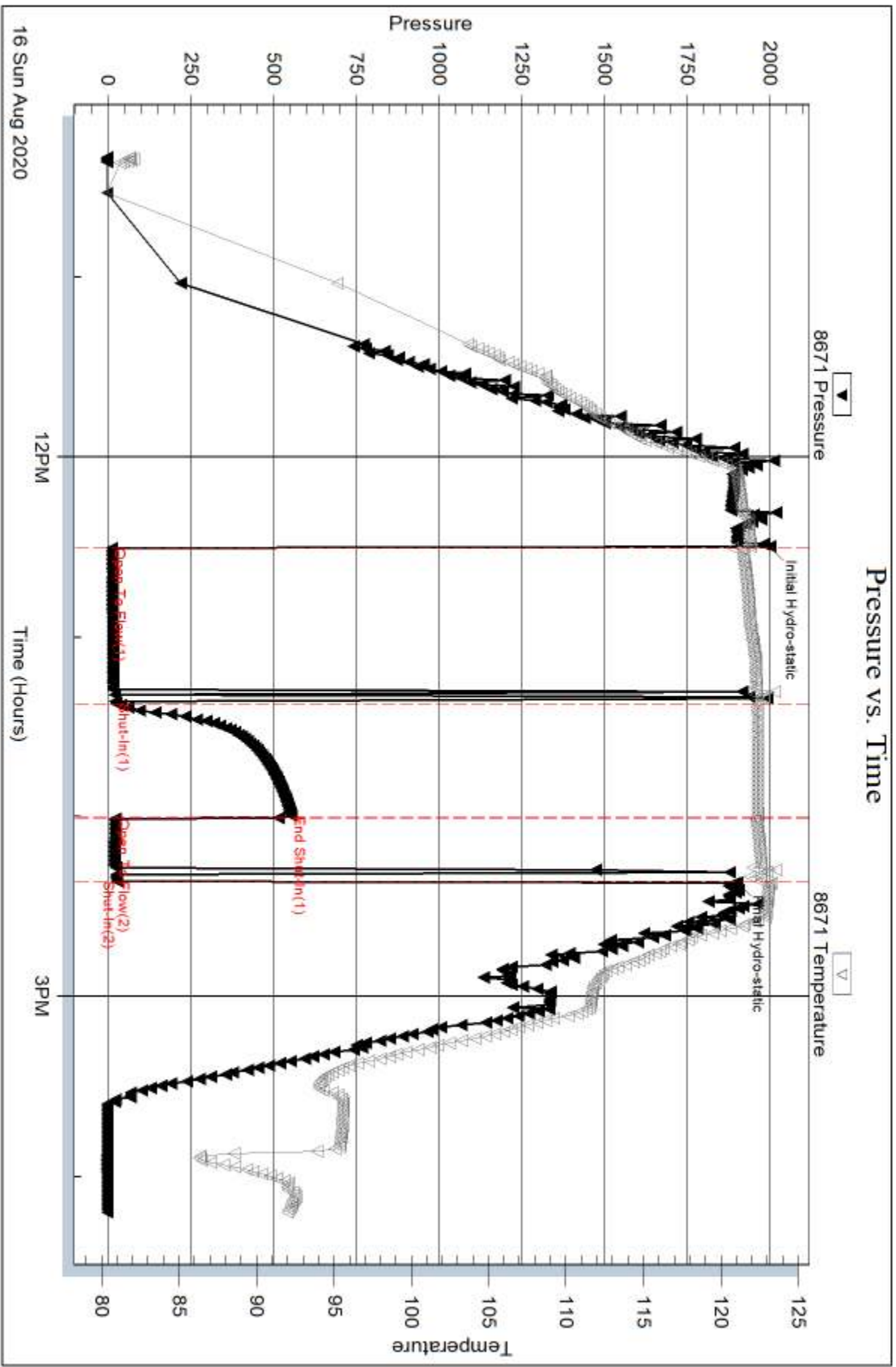
Serial #: 8671

Inside

Bow man Oil Company

Clark B#1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 67405

Printed: 2020.08.17 @ 07:22:23

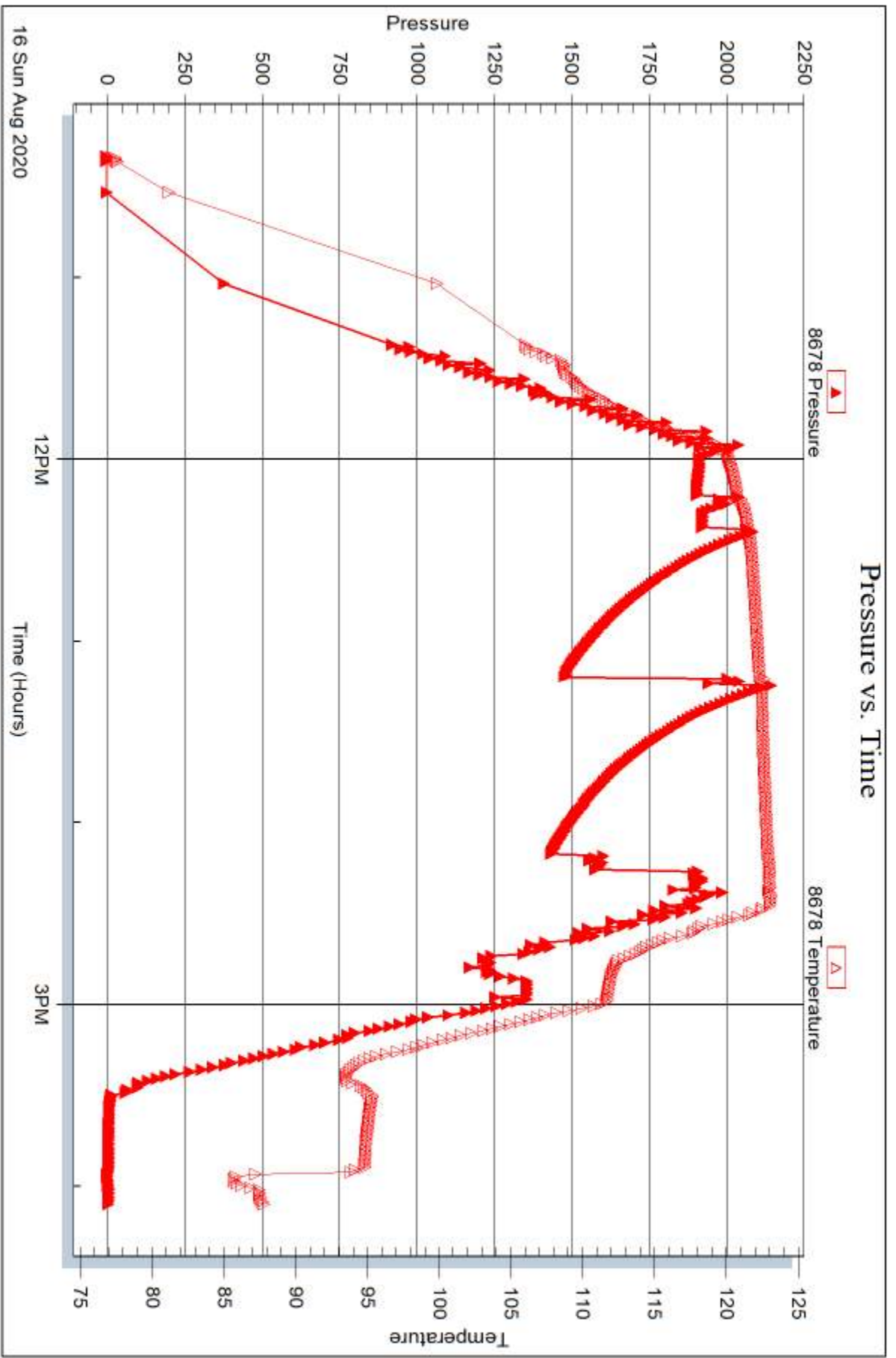


Serial #: 8678

Outside Bow man Oil Company

Clark B #1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 67405

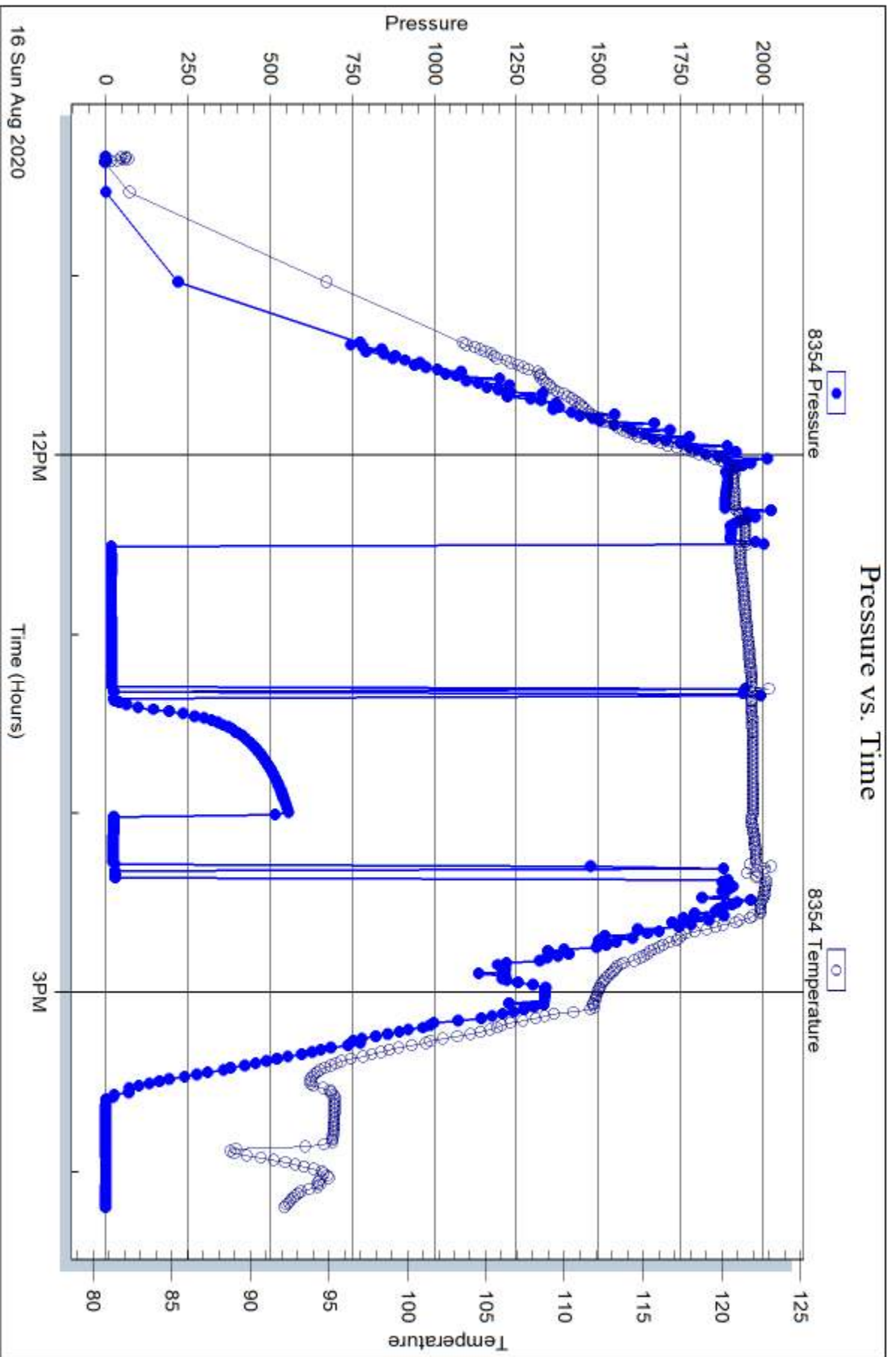
Printed: 2020.08.17 @ 07:22:23

Serial #: 8354

Outside Bow man Oil Company

Clark B#1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 67405

Printed: 2020.08.17 @ 07:22:23



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Bow man Oil Company  
2640 W Rd  
Natoma Ks, 67651  
ATTN: Jerry Green

**31 - 8S - 28W**

**Clark B #1**

Job Ticket: 67407

**DST#: 4**

Test Start: 2020.08.16 @ 16:35:00

## GENERAL INFORMATION:

Formation: **LKC - H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:20:30

Time Test Ended: 00:02:00

Test Type: Conventional Straddle (Initial)

Tester: Royal Fisher

Unit No: #77

**Interval: 3984.00 ft (KB) To 4004.00 ft (KB) (TVD)**

Reference Elevations: 2768.00 ft (KB)

Total Depth: 4125.00 ft (KB) (TVD)

2763.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

**Serial #: 8671**

**Inside**

Press@RunDepth: 344.36 psig @ 3985.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.08.16

End Date:

2020.08.17

Last Calib.:

2020.08.17

Start Time:

16:35:05

End Time:

00:01:59

Time On Btm:

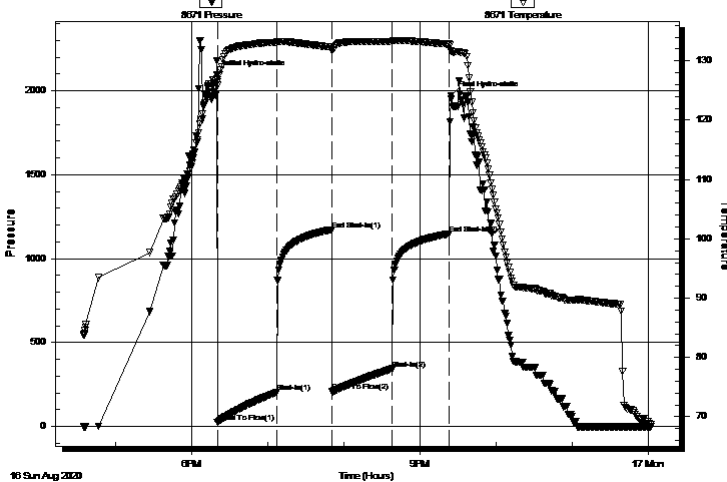
2020.08.16 @ 18:20:15

Time Off Btm:

2020.08.16 @ 21:24:30

**TEST COMMENT:** 45 - IFP - Blow built tp B.o.B. in 13 mins and built up to 21"  
45 - ISI - Return started 13 mins in and stayed at a weak blow  
45 - FFP - Blow built to B>o.B. in 20 mins. and built up to 17"  
45 - FSI - No Return

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2094.72	126.88	Initial Hydro-static
1	26.72	125.89	Open To Flow (1)
47	205.12	133.10	Shut-In(1)
91	1172.44	132.30	End Shut-In(1)
91	207.99	131.69	Open To Flow (2)
138	344.36	133.27	Shut-In(2)
183	1147.39	132.82	End Shut-In(2)
185	1971.74	131.71	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
252.00	OCMW - 1%o - 5%m - 94%w	2.59
252.00	OCMW - 2%o - 5%m - 93%w	2.59
220.00	OCMW - 15%o - 35%m - 50%w	2.26

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Bow man Oil Company

**31 - 8S - 28W**

2640 W Rd  
Natoma Ks, 67651

**Clark B #1**

Job Ticket: 67407

**DST#: 4**

ATTN: Jerry Green

Test Start: 2020.08.16 @ 16:35:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

52000 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.00 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
252.00	OCMW - 1%o - 5%m - 94%w	2.586
252.00	OCMW - 2%0 - 5%m - 93%w	2.586
220.00	OCMW - 15%o - 35%m - 50%w	2.257

Total Length: 724.00 ft      Total Volume: 7.429 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

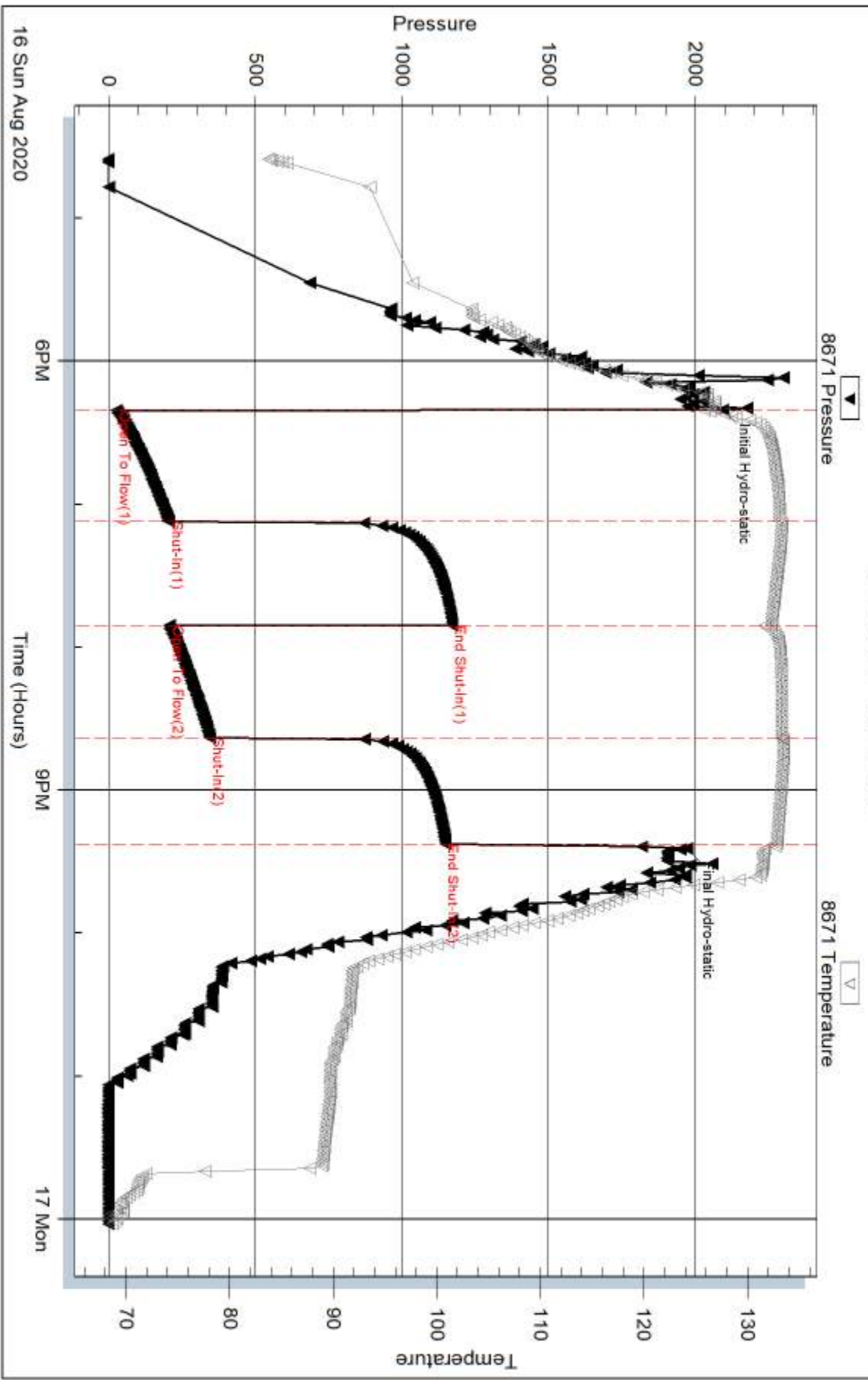
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .165@62 deg

### Pressure vs. Time

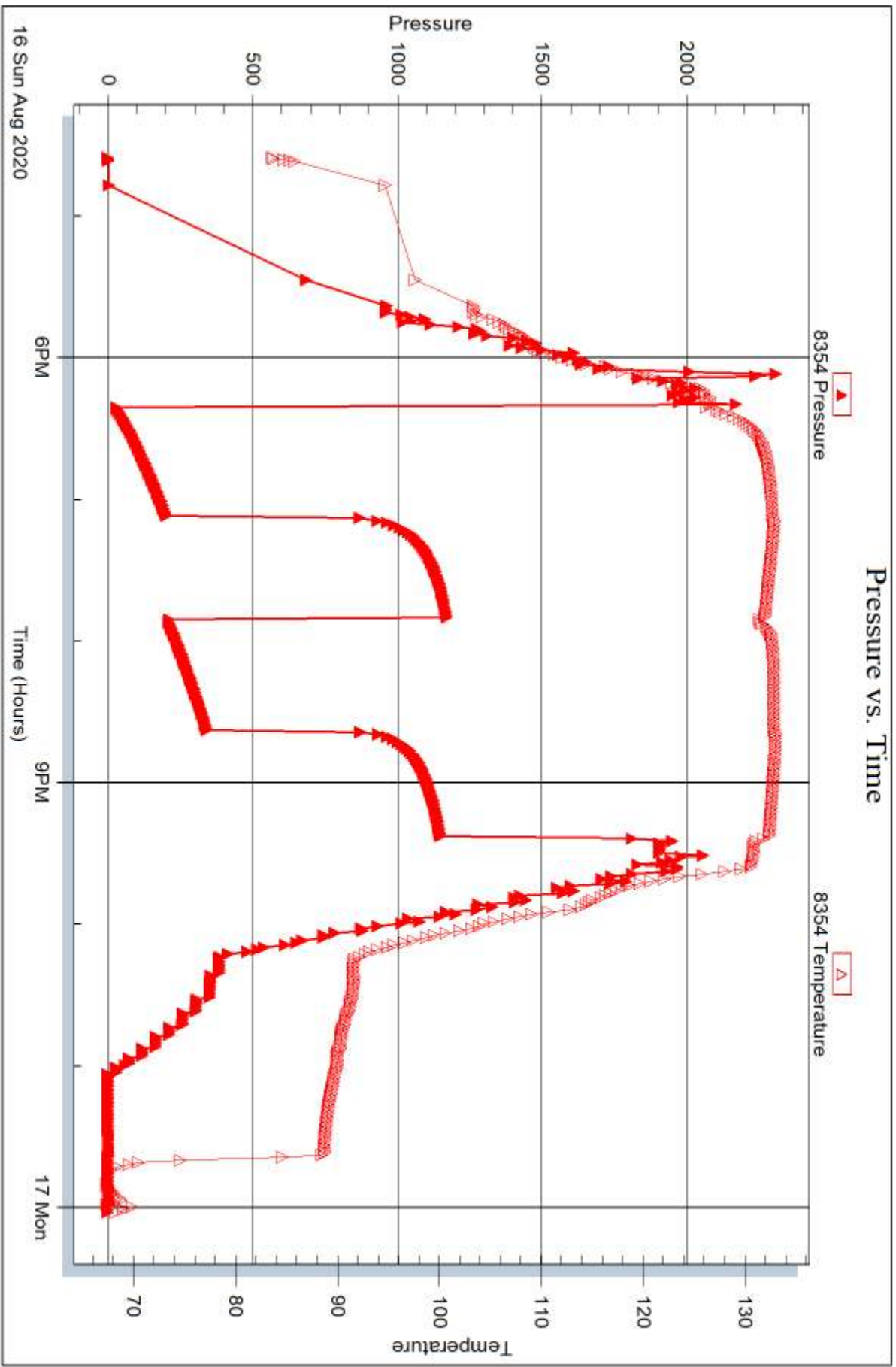


Serial #: 8354

Outside Bow man Oil Company

Clark B#1

DST Test Number: 4





Serial #: 8678

Outside Bow man Oil Company

Clark B#1

DST Test Number: 4

